UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
THAI, HANH B

ART UNIT	PAPER NUMBER
2161	

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Please find below and/or attached an Office communication concerning this application or proceeding.

(

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/805,626	LI ET AL.
		Examiner	Art Unit	
		Hanh B. Thai	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _amendment filed 4/7/05_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-12,14-26,40-47 and 51-54_ is/are pending in the application.

4a) Of the above claim(s) _13, 27-39 and 48-50_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-12,14-26,40-47 and 51-54_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _4/7/05_.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

This is in response to amendment filed April 7, 2005.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-12, 14-26, 40-47 and 51-54 have been

considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
requirements of this title.

2.   Claims 10-12, 14-26 and 42-47 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:
        (1) whether the invention is within the technological arts; and
        (2) whether the invention produces a useful, concrete, and tangible result.
        For a claimed invention to be statutory, the claimed invention must be within the
technological art. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural
phenomena) that do not apply, involve, use, or advance the technological art fail to promote the
"progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences,
for example) and therefore are found to be non-statutory subject matter. For a method claim to
pass muster, the recited process must somehow apply, involve, use, or advance the technological
arts.
As to technological arts recited in the preamble, mere recitation in the preamble (i.e., intended or
field of use) or mere implication of employing a machine or article of manufacture to perform
some of the recited steps does not confer statutory subject matter to an otherwise abstract idea
unless there is positive recitation in the claim as a whole to breathe life and meaning into the
preamble. In Bowman (Ex parte Bowman, 61 USPQ2d 1665, 1671 (BD. Pat. App. & Inter.
2001) (Unpublished), the board affirmed the rejection under U.S.C. 101 as being directed to non-
statutory subject matter. Although Bowman discloses transforming physical media into a chart
and physically plotting a point on said chart, the Board held that the claimed invention is nothing
more than an abstract idea, which is not tied to any technological art or environment.

        In the present case, claims 10 and 42 recite a method comprising the steps of identifying

collecting, classifying and extracting media content, which can be implemented by the mind of a

person or by the use of a pencil and paper. In another words, since the claimed invention, as a

whole, is not within the technological arts as explained above, these claims only constitute an

idea and does not apply, involve, use, or advance the technological arts, thus, it is deems to be

directed to non-statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marchisio (U.

S. Patent no. 6,510,406) in view of Diamond (U. S. Patent no. 6,269,368) and further in view of

Wang et al. (US 5,802,361).

Regarding claim 1, Marchisio discloses one or more computer-readable media having

stored thereon a plurality of instructions that, when executed by one or more processors of a

computer, causes the one or more processors to perform the following acts:

-   receiving search criteria (see col. 5, lines 8-11 and col. 7, lines 27-34, Marchisio);

-   generating a query vector based on text features of the search criteria (see col. 5, lines

    11-17 and col.7, lines 35-39 and step 17, Fig.1, Marchisio);

-   identifying media content pieces (see col.19, lines 10-13 and Fig. 12, Marchisio).

    Please note that the "digitized speech" corresponds to "media content";

-   modifying the query vector based on the user feedback (see col.7, lines 55-65 and col.

    16, lines 52-56, Marchisio);

- modifying one or more of the text feature vectors (see feature 27, Fig.3 and col. 14, lines 25-31, Marchisio).

- identifying new media content pieces (see col. 7, lines 30-34; 27, Fig. 3).

Marchisio, however, does not explicitly disclose "comparing the query vector to text feature vectors" and "receiving user feedback regarding the relevancy of the identified media content pieces". Diamond, on the other hand, discloses an information retrieval using dynamic evidence combination system including comparing the query vector to text feature vectors and receiving user feedback (see col.6, line 65 to col. 7, line 5 and lines 9-11; col. 18, line 50 to col. 19, line3, Diamond). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marchsio to include the claimed features as taught by Diamond. The motivation of doing so would have been to obtain the desire of information retrieval technique that capture both the preciseness and richness of meaning in queries and documents (see col. 2, lines 3-6, Diamond). Marchisio and Diamond does not disclose "non-text media" and "classifying the one or more of non-text media content". Wang discloses a method for searching graphic images and videos including the step of classifying the images that corresponds to "non-text media" (col.1, lines 7-10 and col.2, lines 57-61, Wang). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the combination system of Marchisio and Diamond to include the claimed feature as taught by Wang. The motivation of doing so would have been to provide the user a simple and rapid way to specify and modify the non-text media (col.4, lines 20-39, Wang).

Regarding claim 2, Marchisio/Diamond/Wang combination further discloses generating another query vector based on one or more low-level features of the search criteria (see col. 17, lines 8-21, Marchisio); and wherein the identifying comprises, comparing the query vector to text feature vectors associated with the plurality of media content pieces to generate first results, comparing the other query vector to other low-level feature vectors associated with the plurality of media content pieces to generate second results, and combining, for one of the plurality of media content pieces, the first and second results corresponding to the one media content piece (see col. 17, lines 47-53 and Fig. 10, Marchisio).

Regarding claim 3, Marchisio/Diamond/Wang combination further discloses the altering, based on the user feedback, a weighting of the results used in the combining (see col. 6, line 67 to col. 7, line 8 and col. 10, lines 30-39, Diamond).

Regarding claim 4, Marchisio/Diamond/Wang combination further discloses the step of determining and weighting the result corresponding to the media content piece (see col. 17, lines 54-66, Marchisio).

Regarding claim 5, Marchisio/Diamond/Wang combination further discloses the step of altering a weighting of one or more elements in the feature vector based on the user feedback (see col. 19, lines 10-19, Diamond).

Regarding claim 6, Marchisio/Diamond/Wang combination further discloses the search criteria comprise one or more words (see 5, Fig.1, Marchisio).

4.   Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marchisio (U. S. Patent no. 6,510,406) in view of Diamond (U. S. Patent no. 6,269,368) and further view of Hoffert et al. (U. S. Patent no. 6,282,549).

Regarding claim 7, Marchisio/Diamond disclose all of the claimed limitation as discussed above except that the piece of media content comprises an image. Hoffert, on the other hand, discloses the web crawler to search and locate media files including images (see 101, Fig.1 and col. 3, lines 28-54, Hoffert). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marchsio to include the crawler module couple to access media content as evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Marchisio would not be able to (see col. 2, lines 24-27, Hoffert).

Regarding claim 8, Marchisio/Diamond/Hoffert combination further discloses the piece of media content comprises a portion of audio content (see col. 8, lines 1-53 and 101, Fig.1, Hoffert).

Regarding claim 9, Marchisio/Diamond/Hoffert combination further discloses the piece of media content comprises a portion of multimedia content (see col. 8, lines 1-53 and abstract of Hoffert).

5.   Claims 10-12 and 14-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Hoffert et al. (U. S. Patent no. 6,282,549) in view of Wang et al. (US 5,802,361).

Regarding claims 10 and 26, Hoffert discloses a method comprising:

-    identifying a media content source (see col. 3, lines 14-21, Hoffert).

-    Hoffert discloses the web crawler to search and index for media files and find media content located at the web site of interest and associated with the references of the media files (see col. 3, lines 28-54 and col. 4, lines 18-20 and 45-47, Hoffert). This reference corresponds to the "associated text" from the content source. These

searching and indexing reads on "collecting one or more pieces of media content and associated text from the media content source";

- extracting, for a piece of media content, one or more text features from the associated text (see col.18, lines 40-45 and col.21, lines 17-22, Hoffert). The "useful information" or "meaningful information" corresponds to the "text features" that is extracted from the data, according to col. 7, lines 48-67 of Hoffert, this data is "the associated text"; and

- making the one or more text features available for searching (see col.18, lines 40-45 and col.21, lines 17-22, Hoffert).

Hoffert does not disclose "non-text media" and "classifying the one or more of non-text media content". Wang discloses a method for searching graphic images and videos including the step of classifying the images that corresponds to "non-text media" (col.1, lines 7-10 and col.2, lines 57-61, Wang). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Hoffert to include the claimed feature as taught by Wang. The motivation of doing so would have been to provide the user a simple and rapid way to specify and modify the non-text media (col.4, lines 20-39, Wang).

Regarding claim 11, Hoffert/Wang combination further disclose generating one or more text feature vectors from the extracted one or more text features (see col. 21, lines 20-22, Hoffert); and wherein the making comprises making the one or more text feature vectors available for searching (see col.18, lines 40-45 and col. 21, lines 17-22, Hoffert).

Regarding claim 12, Hoffert/Wang combination further teaches the level of content

attributes to be meaningful which corresponds to "low-level feature" (col. 21, lines 14-15); and

making the one or more low-level features available for searching (see col. 18, lines 40-45,

Hoffert).

Regarding claim 14, Hoffert/Wang combination further disclose a plurality of web pages,

each web page including a plurality of pieces of media content and text associated with one or

more of the plurality of pieces of media content (col. 4, line 8 and lines 55-57, Hoffert).

Regarding claim 15, Hoffert/Wang combination further disclose a filename and the one

or more text features comprises one or more words in the filename (see col. 6, line 22, Hoffert).

Regarding claim 16, Hoffert/Wang combination further disclose a uniform resource

locator (URL) and the one or more text features comprise one or more words in the URL (see

col. 6, lines 45-67, Hoffert).

Regarding claim 17, Hoffert/Wang combination further disclose that the associated text

for a piece of media content comprises alternate text that can be displayed in place of the media

content, and the one or more text features comprises one or more words of the alternate text (see

col. 5, lines 30-34, Hoffert).

Regarding claim 18, Hoffert/Wang combination further disclose the associated text for a

piece of media content comprises text surrounding the piece of media content on a web page, and

the one or more text features comprises one or more words of the text surrounding the piece of

media content (see col. 5, lines 62 to col. 6, lines 9, Hoffert).

Regarding claim 19, Hoffert/Wang combination further disclose the associated text for a

piece of media content comprises a title of a web page that includes the piece of media content,

and the one or more text features comprises one or more words in the title (see col. 6, lines 19-22, Hoffert).

Regarding claim 20, Hoffert/Wang combination further disclose the associated text for a piece of media content comprises a link on a web page that includes the piece of media content, and the one or more text features comprises one or more words in the link (see col. 6, lines 15-21, Hoffert).

Regarding claim 21, Hoffert/Wang combination further disclose the associated text for a piece of media content comprises anchor text corresponding to the piece of media content, and the one or more text features comprises one or more words in the anchor text (see col. 7, lines 46-61, Hoffert).

Regarding claim 22, Hoffert/Wang combination further disclose the associated text for a piece of media content comprises an image annotation corresponding to the piece of media content, and the one or more text features comprises one or more words in the image annotation (see col. 7, lines 45-51, Hoffert).

Regarding claim 23, Hoffert/Wang combination further disclose that the piece of media content comprises an image (see 101, Fig.1, Hoffert).

Regarding claim 24, Hoffert/Wang combination further disclose the piece of media content comprises a portion of audio content (see col. 8, lines 1-53 and 101, Fig.1, Hoffert).

Regarding claim 25, Hoffert/Wang combination further disclose the piece of media content comprises a portion of multimedia content (see col. 8, lines 1-53 and abstract of Hoffert).

6.   Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marchisio (U. S.

Patent no. 6,510,406) in view of Hoffert et al. (U. S. Patent no. 6,282,549) further in view of

Wang et al. (US 5,802,361).

Regarding claim 40, Marchisio discloses a system comprising:

-        a feature extraction module (21, Fig2) coupled to extract for a piece of the one

or more different types and from the one or more text features from one of the

media content pieces (see col. 8, lines 46-49, Marchisio); and

-        a content indexing module (20, Fig.2) coupled to generate, for a piece, a text

feature vector (see col. 5, lines 8-14, col. 6, lines 35-38, Marchisio), based on

the extracted one or more text features, corresponding to the one media content

piece (see col.8, lines 50-56, Marchisio).

Marchisio, however, does not explicitly disclose "a crawler module coupled to access a

media content source and collect a plurality of media content pieces and associated text

from the media content source." Hoffert, on the other hand, discloses the web crawler to

search, locate media files and find media content located at the web site of interest and

associated with the references of the media files (see col. 3, lines 28-54 and col. 4, lines

18-20 and 45-47, Hoffert). This reference corresponds to the "associated text" from the

content source. Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to modify Marchsio to include the crawler module couple to

access media content as evidenced by Hoffert. The motivation of doing so would have

been to allow user to search media content which Marchisio would not be able to (see

col. 2, lines 24-27, Hoffert).

Marchisio and Hoffert does not disclose "non-text media" and "classifying the one or more of non-text media content". Wang discloses a method for searching graphic images and videos including the step of classifying the images that corresponds to "non-text media" (col.1, lines 7-10 and col.2, lines 57-61, Wang). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the combination system of Marchisio and Hoffert to include the claimed feature as taught by Wang. The motivation of doing so would have been to provide the user a simple and rapid way to specify and modify the non-text media (col.4, lines 20-39, Wang).

7.   Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (U. S. Patent no. 6,269,368) in view of Hoffert et al. (U. S. Patent no. 6,282,549) and further in view of Wang et al. (US 5,802,361).

Regarding claim 41, Diamond discloses a system somprising:

-    a query generator (50, Fig.1, Diamond) to generate a query vector based on received search criteria (see col. 6, lines 25-33, Diamond). Please note that "representation of query" corresponds to the "query vector"; and

-    a matching module (55, Fig.1, Diamond), to receive the query vector and compare the query vector to a plurality of feature vectors (see col. 6, lines 37-42 and col. 18, lines 62-66, Diamond). Please note that "representation of document" corresponds to the "feature vector".

Diamond, however, does not disclose "a plurality of pieces of media content". Hoffert, on the other hand, discloses the web crawler to search and locate multimedia files (see abstract, element 101, Fig.1 and col. 3, lines 28-54, Hoffert). It would have been obvious

to one of ordinary skill in the art at the time of the invention to modify Diamond to

include the plurality of media content pieces as evidenced by Hoffert. The motivation of

doing so would have been to allow user to search media content which Diamond would

not be able to (see col. 2, lines 24-27, Hoffert).

Diamond and Hoffert does not disclose "non-text media" and "classifying the one or

more of non-text media content". Wang discloses a method for searching graphic images

and videos including the step of classifying the images that corresponds to "non-text

media" (col.1, lines 7-10 and col.2, lines 57-61, Wang). It would have been obvious to

one of ordinary skill in the art at the time of the invention was made to modify the

combination system of Diamond and Hoffert to include the claimed feature as taught by

Wang. The motivation of doing so would have been to provide the user a simple and

rapid way to specify and modify the non-text media (col.4, lines 20-39, Wang).

8.   Claims 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond

(U. S. Patent no. 6,269,368) in view of Hoffert et al. (U. S. Patent no. 6,282,549) and further in

view of Schuetze et al. (U. S. Patent no. 6,567,797).

Regarding claim 51, Diamond discloses one or more computer-readable media having

stored thereon a plurality of instructions that, when executed by one or more processors of a

computer, causes the one or more processors to perform acts including:

-       comparing a query vector corresponding to search criteria of the user and a feature

        vector (see col. 6, lines 37-42 and col. 18, lines 62-66, Diamond). Please note that

        "representation of query and document" corresponds to the "query and feature

        vector";

- receiving user feedback regarding the relevancy of data content (see col. 18, lines 34-55, Diamond);

- modifying the query vector based on the received user feedback (see col. 19, lines 39-46, Diamond).

Hoffert, on the other hand, discloses the method of searching and indexing media content including media content piecess (see 101, Fig.1 and col. 3, lines 28-54, Hoffert). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Diamond to include media content as evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Diamond would not be able to (see col. 2, lines 24-27, Hoffert).

Diamond and Hoffert combination does not disclose "the received user feedback in an off line". Schuetze, on the other hand, discloses a system for retrieving information from a collections of uses multi-modal features of the documents in the collection including the user feedback processing that is performed off-line (abstract; summary and col.8, lines 5-14, Schuetze). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the user feedback in an off-line as taught by Schuetze. The motivation of doing so would have been to provide flexibility and useful searching based on the text feature vector (col. 5, lines 30-39, Schuetze).

Regarding claims 52 and 53, Diamond/Hoffert/ Schuetze combination discloses all of the claimed subject matter. However, Diamond's "values to the hidden layer" (col. 17, line 29, Diamond) reads on the claimed "confidence" value. Because the new query vector D is adjusted based on the relevancy value (in the same manner as is the claimed vector D adjusted on the

confidence value), the Examiner takes the position that the claimed relationship (see formula claim 52) is in fact inherent in Marchisio. And for the formula in the claim 53 is basically a calculating the different between the value 1 and adjusted vector.

Regarding claim 54, Diamond/Hoffert/ Schuetze combination discloses that the pieces of media content comprise the audio content, visual content, and multimedia content (see Fig. 1 and Abstract of Hoffert).

Allowable Subject Matter

9. Claims 42-47 would be allowable if rewritten to overcome 101 rejection set forth above.

10. The following is a statement of reasons for the indication of allowable subject matter: The prior arts fail to disclose or suggest "comparing a high-level query vector to a high-level feature vector of the other piece of media content and a result of comparing a low-level query vector to a low-level feature vector of the other piece of media content and combining the weight result to determine whether to identify the other piece of media content for rendering."

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Foote et al. (US 6,404,925 B1) disclose methods and apparatuses for segmenting an audio-visual recording using image similarity searching and audio speaker recognition.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh B. Thai whose telephone number is 571-272-4029. The examiner can normally be reached on 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh B Thai
Examiner
Art Unit 2161

June 27, 2005

UYEN LE
PRIMARY EXAMINER